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Original Communications.

OBSERVATIONS UPON OVER-WORK AND
STRAIN OF THE HEART.

By J. B. TREADWELL, M.D. Harv.

Read before the Massachusetts Medical Society, at the
Annual Meeting, 1872.

CARDIAC disease has usually been regarded as arising almost exclusively from rheumatism in the young, and nephritic troubles, rheumatism and atheroma in the old; and, so far as I am informed, this is still the teaching of the standard authorities. Bodily labor and mechanical causes, as productive of cardiac lesions, are almost unmentioned in nearly every text-book, and, where alluded to, are mentioned in so vague and uncertain a manner as to discourage rather than stimulate investigation of a class of cases thus originating; for there is a certain and well-defined class or group of lesions of the heart, induced by and traceable directly to excessive bodily labor as their cause; and these cases, once recognized in their true nature, are ever afterwards impressed upon the observer as radically different in cause, pathological changes and general course from any and all other classes of cardiac affections. To say nothing of the peculiar rational symptoms attendant upon these cases, when once a heart of this kind has been listened to, with a comprehension of the nature of its lesions, the observer would never afterwards fail to distinguish at once between the sounds proceeding from a heart thus disabled and those of one suffering from the effects of any of those causes more generally regarded as almost the only agents directly productive of structural changes in the heart. The sounds, tones, murmurs and rhythm of a heart thus affected are peculiarly its own, and as distinct from a rheumatic heart, for instance, as is a crepitant from a mucous r le.

From personal observation, I have for
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some years been strongly impressed with the peculiarities presented by this class of cardiac troubles, but until a few days since, when I commenced the preparation of this paper, I have preferred to pursue my investigations independently of any information from other sources, in order that, having thus acquired some knowledge of this class of cases and arrived at a somewhat definite opinion in regard to their nature, I might be able, with greater advantage, to compare my observations and conclusions with whatever published matter I might find touching upon the same subject. Since I commenced the preparation of this paper, however, I have pretty thoroughly looked up the literature of the subject, and have found essays and special papers bearing more or less upon the subject, as follows:—

An article upon "The Effects of Over-work and Strain of the Heart and Great Bloodvessels," by T. Clifford Allbutt, M.D., Physician to St. George's Hospital. *St. George's Hospital Reports*, vol. v., 1870.

"Diseases of the Heart among Soldiers," the "Alexander" Prize Essay for 1870, by Arthur B. R. Myers, Asst. Surg. Coldstream Guards.

"Mitral Regurgitation arising independently of Organic Disease of the Valve," by J. S. Bristowe, M.D., F.R.C.P., Physician to St. Thomas Hospital. *British and Foreign Medico-chirurgical Review*, 1861.

"On the Mechanism and Sounds of the Dilated Heart," by Prof. W. T. Gairdner, M.D. *Edinburgh Med. Journal*, July, 1865.

Dr. Peacock, in the Croonian Lectures of 1865, refers incidentally to this subject, which he also mentions in his work on "Valvular Diseases of the Heart."

Prof. Parkes has also, I think, referred to the same subject in some of his lectures.

To these papers I shall frequently refer, simply naming the writer; taken together, they throw a vast deal of light upon a subject in respect to which scarcely anything else, of a definite character, has been written. The cases of the class or group of affections of which these papers treat, are alleged by all of these gentlemen, more or

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less distinctly, to be due to mechanical causes, although there is much difference of opinion as to the exact nature and course of the pathological changes involved.

Their fields of observation have also been somewhat varied. Dr. Allbutt writes from observation in civil life, while Mr. Myers speaks from experience confined almost exclusively to military service, and Dr. Peacock alludes to the frequency of dilatation of the heart and its sequelæ among the Cornish miners, "who, after heavy hammer work during the day, are compelled by their own power to raise themselves from the pit-bottom when their day is done; an hour of ladder climbing being often required of them in the evening."

My own observations in this line have been almost exclusively confined to cases originating in military service. I had unusually good opportunities while in service to observe these cases in their development, from the fact that I had under my professional care at different times bodies of green men below the average age of enlistment, and, in consequence of certain circumstances attendant upon their enlistment, of less than the average amount of physical vigor—two of the strongest predisposing causes to cardiac trouble of this kind. Of these cases, however, I have no full notes; consequently they are unavailable for statistical purposes, and are therefore only alluded to here as bearing upon the general pathology of cardiac over-strain.

The later development and results of these affections, as observed in soldiers who served in the volunteer forces during the late war—1861 to 1865—in the examinations made by the Boston Board of Pension Surgeons, during the past year, will therefore serve as the statistical basis of this paper; and I wish here to remark that each of the cases below recorded was carefully examined by one of my colleagues, Dr. Horace Chase, a gentleman most thoroughly accomplished in the pathology and diagnosis of thoracic affections, and by myself, independently of each other, and in all of the cases given our respective opinions coincided as to the particular lesion present in each case.

The necessarily confined limits of this paper forbid my giving individual cases or entering into any of numerous details. For want of time I can only allude to my recorded cases in the most general way, and, for the same reason, I shall say nothing specially of those cases which I have observed among civilians, those of military

origin forming by far the largest number of cases, and therefore being the most available for statistical purposes. But both classes, military and civil, are etiologically and pathologically identical, and therefore the lessons, prophylactic and therapeutic, which we may derive from one class are applicable also to the other.

Cases of heart disease form a large percentage of the sum total of disabilities for which men are invalidated from military service.

A committee appointed by the British Government to investigate the subject of heart-disease among soldiers, reported, in 1864, that from 1861 to 1863, the ratio of men invalidated from this cause was 3.92 per 1000, and those invalidated for all other causes 26.89 per 1000 of the total strength; showing that more than one in seven of the whole number invalidated were disabled from cardiac disease, and this in time of peace. In time of war and active campaigning, with accessions to the army of a greater proportion of new and young recruits, the ratio would be much greater.

Mr. Myers gives a table showing the comparative death-rate in civil and military life—the civil statistics referring to the males of London—from which it appears that the ratio per 1000 deaths from diseases of the circulatory system in civil life is .77, and in military life .9. He also gives a table which shows that 22.56 per 1000 of the recruits examined are rejected from this cause. Now when it is remembered that these revert to the civil list, and also that many soldiers discharged from service for disease of the heart and other circulatory organs, and dying subsequently, are classed in the civil death-rate; and, further, when it is remembered that the death-rate from diseases of the circulatory system in persons who have passed the age of 45 is greatly in excess—in proportion to the number living—of that of earlier years, and that but few men remain in the service after that age, it will be at once apparent that the disproportion of deaths from the same causes in the two classes is far greater than is indicated by the above figures.

Inspector General Lawson, in the British Army Medical Report for 1866, gives statistics fully confirming the above.

Through the kindness of Brev. Maj. Gen. Joseph K. Barnes, Surg. Gen. U.S.A., I have been favored with statistics from Vol. I. of the Medical History of the War of the Rebellion—not yet issued—showing that during the war 10,636 white and 161 colored soldiers were discharged on "sur-

geon's certificate of disability" for "heart disease." The tables from which these figures are abstracted show the cause of discharge of about 200,000 men, or over two-thirds of the number actually discharged during the war.

Thus out of every 1000 discharged, 53 are discharged for disease of the heart. Now the proportion of heart cases among the pensioners which we have examined is much greater, being 80.74 per 1000. This increased ratio is accounted for, in part at least, by the fact that a large number of men, literally thousands, were discharged as suffering from various diseases, when in fact their disabilities consisted in disabled hearts—"general debility," "pulmonary disease," "sunstroke," &c., representing thousands of these cases. Therefore the ratio must approximate, at least, that obtaining in our examinations; certainly it cannot be much less, as the deaths which have occurred among men discharged for gun-shot wounds, hernia, and other disabilities of a purely surgical nature—which, according to the roll of invalid pensioners of the Boston Agency, constitutes rather more than 80 per cent. of the whole number—must have been, from the very nature of the disabilities, proportionately less than among those discharged for disabilities of a purely medical character.

Nearly 70 per cent. of the heart cases hereafter alluded to originated previous to the autumn of 1863. They originated also in groups, according to the exigencies and hardships of the service. The Peninsular campaign, the Banks retreat, and the forced marches to Gettysburg, each furnished a large number of cases. The arduous service of the armies of the West may have been equally productive of this class of cases, but as few troops from this State participated in the more severe campaigns of that section, the number of cases originating there which have come under our observation have been comparatively small.

During the first two years of the war the weak men were weeded out by hardship and disease, and the physical condition of the recruits furnished during the last two years being better—with a few exceptions, as in the case of regiments enlisted for short terms of service, and which saw but little active duty—than those enlisted earlier in the war, there were very much fewer cases resulting during this period of so marked a character as to disable the men from manual labor during the remainder of their lives; but many men in whom these lesions were but slight at first, and of slow progress,

but still progressive in consequence of continued subjection to the exciting cause, served, on and off duty, throughout their terms of enlistment, and were discharged by "expiration of term," or the close of the war, with hearts more or less permanently damaged from overwork; and after a careful examination of three or four thousand pensioners, I am satisfied that more than three-fifths, if not more than three-fourths, of them have hearts structurally damaged to a greater or less degree, and this I am convinced will hold true to a great measure of all infantry soldiers who served faithfully for two years or more in the Army of the Potomac.

Personally, these men are conscious that physically they are not what they were before enlistment; that they have infinitely less power of endurance; but just why, they do not know.

Age, or rather the lack of it, has a strong bearing upon the production of these lesions. In our cases, given below, in which there was no evidence of rheumatism, the average age was only 24.47 years, while in those of rheumatic origin the average age was 42.35 years—both at time of origin as nearly as known. The reasons, or rather the one great reason, for this is so obvious that it is unnecessary even to mention it.

Among 2,477 pensioners examined between June 30, 1871, and May 1, 1872, for disabilities contracted in the U. S. military service during the late civil war, we found 199 suffering severely from some form of cardiac disease, against 266 disabled from other diseases of a purely medical nature; the remaining 2,012 being disabled from causes of a surgical nature. Of the 199 suffering from disease of the heart, 6 had had acute rheumatism, and should therefore be eliminated from the number of those originating from the cause named as the subject of this paper; 39 had suffered at one time or another from chronic rheumatic pains and other symptoms of rheumatism, and although in some of these there was not the slightest positive evidence that the cardiac lesions were in any way of a rheumatic origin, yet for the sake of the greatest possible accuracy, I exclude them also from the cases under consideration, in which, upon careful examination, we could not detect the slightest trace or history whatever of any morbid diathesis or organic disease preceding the cardiac affections; 5 cases were the result of sudden and severe violence to the chest walls, producing very marked and peculiar lesions of the heart—in two cases most certainly,

I think, valvular rupture—and these also are counted out, leaving, as I before stated, 150 cases which it seems to me there can be no doubt were the result of strain and over-work of the organ in question.

[To be continued.]

FIVE SUCCESSIVE MIDWIFERY CASES.

By WM. P. BOLLES, M.D. Harv.

THESE were my first five midwifery cases after my graduation, and they are reported to illustrate the practical difficulties to which chance may expose the recent graduate.

I.—The first patient was an English woman, twenty-seven years old, and mother of five children, three of whom are still living. She became pregnant this time while nursing her last baby, without an intervening menstrual turn, and quickened last Thanksgiving.

On February 13th she walked about two miles, and again started on the following day to attend some national festival, going a short distance by rail, but was overtaken by an escape of fluid from the womb, and forced to return. This discharge continued gradually all day, and by night, when I first saw her, she had wet a number of cloths. The abdomen was then small, the uterus just passing the umbilicus. The cervix was long, and its internal os firmly closed. No pain. Belly rather flaccid. Ordered rest, opium, &c.

Three days after, the uterus was still further reduced, and seemed to closely embrace the child, which lay obliquely from the right downward to the left; an occasional grinding feeling came before the escape of water, but no real pain. She went on in this way, losing the amniotic fluid gradually and painlessly, for twelve days before true labor began. The pains began at about four o'clock in the morning. In three hours or so the os dilated so as to show a foot presentation, both feet being high up and lying side by side, *but with one heel pointed forward and the other backward*; the outer border of one foot lying against the inner border of the other. From this time till nine or ten o'clock, no gain was made, although the pains were frequent and strong, the presenting parts appearing to be unable to enter the pelvis. I then drew down the left foot, whose heel was directed toward the symphysis, and moved the toes of the other across the left leg, so that this, too, might take a like position. By this means the trouble was removed, and labor ended in a

few minutes, without further help. The child was made to breathe after considerable difficulty. It was quite small and feeble.

The legs, in this instance, must have been crossed like a tailor's, with the knees so wide apart as to rest on the brim of the pelvis. The mother's recovery was rapid, and both are now perfectly well.

II.—Mrs. G., a fat Irish woman, of a hundred and ninety-five pounds weight, and somewhat given to gin-drinking, was the next to call me. She was twenty-seven years old, had been married two years, aborted about a year ago "from a fright," and had been pregnant since the end of July. Several months before delivery, her legs began to swell, and oedema of the arms and face afterwards appeared, that of the face and right arm being quite slight, while that of the other arm (on which she lay) and of the legs was very great. Her tissues were coarse and flabby, her skin pale, and between weakness and clumsiness she could scarcely walk. The urine was examined about a month before delivery, and then contained one-eighth of its bulk of albumen, but no casts. Remedies were left with her at this time, but, after taking one or two doses, with true national caution she omitted them, "lest they might injure the child."

The membranes broke in the evening of March 12th, without pain, and labor began next morning, at about seven o'clock; but although the pains were very good during the day, the os dilated very slowly, and by evening had only attained the size of a dollar. Hyoscyamus and laudanum were given at night, and she slept readily and snored loudly between the pains, which were only ten minutes apart. The head of the child was presenting. On the morning of the 14th the os was nearly dilated and slowly enlarged until evening, when it became fully opened. At four o'clock in the afternoon the pains diminished, but immediately returned on catheterizing and relieving her of a large quantity of urine. *Ol. tigllii* was given in the morning, and operated freely during the day. The position of the head could at no time be made out, because, the membranes having broken early, as fast as the os dilated, the scalp became so oedematous that neither sutures nor fontanelle could be felt. Pulse about 80. During the evening, a neighboring physician having been called, it was decided to give the patient an opiate, as the pains had again receded, and wait until the termination of its effects. She slept as before, snoring

loudly and waking occasionally, tormented by ineffectual pains, until an hour and a half after midnight, when she was seized with a severe convulsion, principally of the left side. I immediately proceeded to bleed her, but on account of her excessive fat no veins could be seen, and it was only after a little delay that about $\frac{3}{4}$ ii. could be obtained. My neighbor, who was at the same time sent for, then arrived, and with his assistance a large living male child was delivered with the forceps. These were applied at the sides of the pelvis, since the head was above the brim, and brought the child down with his face to the pubes. The labor lasted about forty-four hours. The mother remained comatose for six hours. At four o'clock (an hour and a half after delivery), she began to twitch and show other signs of an approaching convulsion, which were checked for a while by ether, when it occurred to me that I had neglected to empty the bladder at the time of delivery; this was done, and no further trouble of the kind followed. Pulse 116. The bladder was paralyzed for several days, and slightly inflamed for as many more. The child, on its second day, had two slight convulsions, but no more.

Both albumen and casts were found in the urine of the mother, after delivery. She made a slow recovery, but both mother and child are now apparently well; the urine has not been examined since.

III.—The third case was an American, twenty-seven years old, large and strong. She had been married nine months, and dates her conception a month after marriage. She moved her home on the twenty-seventh of March, and worked quite hard laying carpets. During the night following she slept badly, on account of vague, restless pains, but no true labor began until about seven o'clock in the morning. About an hour after, when I saw her first, the os was dilated, the sac unbroken, and the head in the usual left occipito-iliac position. The abdomen was very large and broad, and the uterus felt solid on each side. The pains were hard and frequent. The labor went on naturally, and the child was born about eleven o'clock, with so short a cord that, in order not to break it, the child's body had to be doubled up as it came out. The sac of a second child then presented, and this was born by the breech in about half an hour more, with more than two entire turns of the cord drawn quite tightly around its neck; these could not be loosened before the birth of the head. This was assisted without delay with the finger

in the mouth, the face being as usual toward the sacrum. This child did not breathe nor respond at all to the usual means of stimulation, so that I was obliged to inflate its lungs with my own mouth; after a few moments of this assistance it was at last able to respire for itself. The placenta followed in a few minutes. Although she was a primipara, in less than five hours from her first pain, the whole delivery was finished. Both children were girls, rather small and about equal in size. The placentæ were united along one-fourth of their borders, the cords were inserted several inches apart, and the sacs partly united but with separate cavities. Mother and both children are now well.

IV.—This case was an American, about thirty-two years old. She had been married about fourteen years and had two living children, one of twelve years and the other half as old. Besides these she had had a number of abortions, which she had produced upon herself, some of which had been attended with frightful hæmorrhage and long convalescence; after one of them she was confined many months to her bed. Her first labor was natural, but the second was attended with much flooding. She had unsuccessfully attempted the life of the second child, and repeatedly that of this last one, first, by herself with the syringe, and afterwards by the advice of a "Female Homœopathic Physician," but without in either case accomplishing her purpose. I saw her some time before delivery, and as she was then pale, gave her the "Tincture of Iron," as she afterwards said with good effect. She was delivered of a large child, after a rapid and apparently normal labor, the only peculiarity being that the membrane did not break, but had to be torn away from the child's head as it appeared at the vulva. The placenta soon followed entire, and the uterus contracted well, but soon after it softened a little, and she began to call for air and to feel faint. The open hand was then laid on the abdomen, with moderate pressure, and held there about an hour. The hæmorrhage was slight. Next day she looked well, the pulse was low and the strength good, the uterine discharge had been free during the night, but not abundant. She complained considerably of pains in the womb and back, coming and going, like after pains. On the following day (the second after the delivery) I did not call, having warned the nurse to send for me if anything untoward occurred, but on the third, when I did go, a severe chill was reported to have occurred on the

preceding day, followed by fever and an increase of pain and tenderness about the womb. At the time of the visit she was in considerable suffering, the uterus and lower part of the abdomen were tender and swollen, the uterine discharge had diminished; there was some looseness of the bowels, and a cadaverous odor pervaded the room. Pulse 108, feeble. Temperature 103°. Tongue slightly coated. She was ordered quinine in full doses, opium for pain, a carbolic acid solution for a vaginal injection, hop fomentations.

On the next day she was better, all the symptoms being palliated; the pulse was below 100, the temperature 101°, and the uterine discharge had again become natural and not offensive. On the 5th day she looked still more encouraging, the pulse again being lower, and the countenance and skin natural. The tenderness and size of the womb were even more reduced. She had turned to her side, and looked comfortable. The bowels remained a little loose, and there was yet some pain. The milk had never stopped, and she nursed her child without difficulty. There were several rigors, but no marked chill as there had been each day previously.

Next morning, before breakfast, she had a severe chill again, and all her symptoms were aggravated. Her pulse was 120 during the chill, and feeble. Stimulants were ordered, but I never saw her again, for during the day a homœopath was called in, and under his care she died in about forty hours, slightly more than a week from the date of delivery. An examination was asked for by the husband, but this the "physician" refused to make, because it was "too dangerous an undertaking, and he knew just what it would show."

V.—The fifth case was an Englishwoman, about forty years old. She had had five children, and has been subject to some uterine displacement for a number of years, causing distressing back-ache and constipation.

Labor-pains began early on the morning of the 15th of May, and continued rather irregularly during the twenty-four hours following, the os slowly dilating to the size of a dollar or a little more. The whole womb was tipped badly forward, and its mouth faced the promontory of the sacrum, so that it was only with the greatest difficulty that the finger could reach its anterior border. The membranes had no chance to bulge out with the contractions; to this cause was no doubt in part due the extreme slowness of the labor. A face-presentation

was made out, but there seemed to be no gain toward delivery. Once or twice the os was drawn down with the finger, but it immediately returned. The woman was then, on the morning of the 16th, placed upon her back and the anterior lip held down by two fingers during three or four pains, until finally the os was made to present pretty fairly. The face could then be plainly felt through the still unruptured membranes, and the forehead, eyes, nose, mouth and chin detected in succession from left to right. Still the presenting part did not readily engage, although the os was now dilated, so after a few more pains an attempt was made to change the presentation. The child's body was lying quite obliquely from right downward to the left, there was considerable water in the womb, the head was somewhat movable, and the membranes still unbroken. The patient was placed again on her left side, and while with one hand on the abdomen the child's body was carried slowly to the left, a finger or two of the other were used to push, first the lower, and then the upper jaws upward and to the right. In this way the forehead was made to face the vagina, but no further gain could be made until after a few more pains the head again became movable, when, the fingers against the forehead, using the other hand as before, soon succeeded in pushing this up and making the occiput present in the usual left anterior position. The membranes were then ruptured (they were very strong), and a female living child, weighing ten and a half pounds, was born in half an hour.

The mother's recovery was slow, and she is now under treatment for retroflexion of the uterus, which was no doubt her old difficulty.

Boston, August, 1872.

THE TINCTURE OF EUCALYPTUS GLOBULUS AS A DRESSING FOR WOUNDS.—M. Demarquay, in the course of some experiments at the Maison Municipale de la Santé of Paris with the tincture of the leaves of this plant, which has a very agreeable odor, and is believed to possess disinfecting, antiseptic, and healing properties, found that it often gave good results in cases in which the more usual remedies had failed. He adds that the tincture acted not merely by disinfecting and ameliorating the surface to which it was applied, but that its effect in removing the fetid odors which had rendered the patients unable to eat or sleep was still more beneficial.—*Phil. Med. Times.*

Progress in the Med. Sciences.

REPORT ON ANATOMY.*

By THOMAS DWIGHT, Jr., M.D. HARV.

It is proposed to consider, in this report, the present position and recent progress of human anatomy, but the lines dividing it from the kindred sciences of physiology and pathology are so vague that it may be hardly possible to avoid overstepping them; anthropology and comparative anatomy will also obtrude themselves in the discussion of certain questions. No apology is necessary for introducing histology, as it forms a legitimate part of the subject.

METHODS.

Mr. H. G. Howse, in *Guy's Hospital Reports* for 1872, describes, under the head of Embalming, the method he has invented for preserving subjects. He considers glycerine the great preservative agent, but as it fails to keep off maggots and mould, he uses also arsenic, and sometimes carbolic acid. He recommends to make glycerine take up, by boiling, a pound of arsenious acid to the quart. He injects (from the femoral) about one quart and a half of this mixture, and then continues with pure glycerine, till about two gallons of fluid have been injected. The subject by this time has become very cedematous, and effusions have occurred, so that it is well to wait two or three days before injecting another gallon of glycerine. The subjects keep admirably, the muscles being bright red when exposed several months later; after exposure, however, they soon become brown. The injection is made through a syphon from a reservoir placed from three to six feet above the subject. The cost of the materials, including that of paint used in the subsequent arterial injection, is about thirty shillings sterling, or \$7.50 in gold, supposing prices to be the same here as in England.

There is nothing particularly new about this, as similar injections have been made in various places, as shown by the following extracts from the *Records of the Boston Society for Medical Improvement*:—April 24th, 1871. "Dr. Porter showed two specimens, a leg and a fœtus, preserved by a pro-

cess of injection first used by a Russian, Dr. Vivodtsef. The mixture used consists of equal parts of glycerine and water, with one-tenth of carbolic acid. The specimens shown had been in the dissecting-room all winter, simply wrapped up in dry cloths. They were perfectly soft and pliable, and, on cutting through the skin, the muscles looked red and natural. He had tried Gamgee's method—injecting with a solution of chloride of aluminium—but the specimen had dried up, as did one in which he had substituted alcohol for the glycerine in the Russian mixture. . . . "Sept. 23d, 1871. Dr. Porter showed a leg which, five months ago, he had prepared with his preservative mixture, and which had been exposed during the summer to very trying circumstances of temperature. The color was very natural and the specimen was perfectly flexible."

The preservation of dissected parts as flexible preparations is not likely to have any very extensive use, as it is necessary only where fresh subjects cannot be obtained. It is well, however, to have such specimens in museums, to show the relations of parts. For certain pathological preparations it is superior to any other method. The reporter has shown, in a paper "On the Preservation of Anatomical Specimens," read at the annual meeting of the Massachusetts Medical Society in 1870, that various preservative mixtures of which glycerine is the basis, with or without a small proportion of alcohol, containing carbolic acid or chloride of sodium and nitrate of potash, &c., will preserve shape and flexibility in a very satisfactory manner, but not the color.

The attention lately given to the study of the convolutions has led to several new methods of preparing the brain. The following method, in use at the Anatomical Institute of Munich, renders the brain tough and flexible. The fresh organ is put into a solution of chloride of zinc, the strength of which is roughly estimated by throwing a piece of fresh muscle into water and adding zinc till it has about an equal tendency to sink or float. After four or five days, the brain is put into alcohol, and if this be occasionally changed and the specimen but little handled, the latter retains a very handsome, light-gray color. A later idea is to prepare the brain as a dry specimen. Broca mummifies it as follows:—remove the pia mater, and put the brain into a mixture of five parts of water and one of nitric acid. After two days, double the quantity of acid, and after two

* This paper is the first of a series of reports which will appear in the JOURNAL in regular succession. These reports will be prepared by various writers specially fitted for the work, and will present a consecutive *resumé* of the most recent advances in all departments of medical science.—Ebs.

more remove the specimen. Place it on rags, which are to be changed two or three times during the first day; on the second it will be pretty dry. Then expose it to the air on a board for from four to six weeks, at first turning it over occasionally, so that it may not lose shape. The size and weight will be considerably reduced.

The reporter is indebted to Dr. J. J. Putnam for the following account of a new method invented by Meynert, of Vienna. The fresh brain is allowed to lie for a month in 10 per cent. alcohol, which should be renewed from time to time; repeatedly, during the first week. It is then removed to a very strong solution of chromic acid, and left in this for three months. If the fluid equal three times the bulk of the brain, it does not need renewal. The specimen is then put into 30 per cent. alcohol for two or three months, and then into absolute alcohol for the same length of time. It is finally covered with spirits of turpentine and left in an open vessel. When the turpentine has evaporated it may be allowed to dry, and any traces of turpentine can be removed by alcohol. There is no loss of size.

Prof. Hyrtl, of Vienna, in a paper in the *Memoirs (Denkschriften) of the Vienna Academy of Sciences*, 1872, on the renal pelvis (to be reviewed later), gives some hints on the making of "corrosion preparations" by injecting the vessels of an organ and then destroying the soft parts by acid. Hyrtl states that kidneys preserved in alcohol are as good for this purpose as fresh ones. For non-lobulated kidneys strong hydrochloric acid may be used at once; but for others, in which the arrangement is more complicated, it acts too energetically, and the organ should pass a week in a mixture of three parts of acid and one of water before the strong acid is used.

MICROSCOPY.

In regard to microscopes, it is very gratifying to see Prof. Rutherford's remarks (*Quarterly Journal of Microscopical Science*) in praise of a simple instrument, now that those chiefly used in England and America are rendered complicated and expensive by mechanical appliances to do what the educated hand can easily accomplish. He says:—"The microscope which, in my opinion, is by far the best for the student and any one who wants really to work is that made by Hartnack." We admit that it is not the best for those wishing to play with diatomes and test lines; but if any one with a good "Hartnack" is unable to

do first-class work in histology he may be sure that the fault is not in the microscope.

The nomenclature of objectives has of late been discussed by Ward, in the *American Naturalist* for March, 1872, and by Woodward, in the *American Journal of Science and Arts* for June, 1872. There are also some articles on the subject in several of the later numbers of the *Monthly Microscopical Journal*. An universal nomenclature would, indeed, be a great convenience, but we fear is not to be expected.

The subject of micro-photography is a more important, and also a more hopeful one. It is, perhaps, not too much to hope that in a few years the original photographs will take the place of drawings. There will then be less doubt than now as to how many effects are due the draughtsman. (Vide *Schultze's Archiv*, vol. vii. p. 287, 1871.)

Mr. Wenham, in the *Monthly Microscopical Journal* for June, 1872, describes "an improved reflex illuminator for the highest powers of the microscope."

Drs. Klein and Sanderson, in a preliminary notice on the anatomy of serous membranes, in the *Quarterly Journal of Microscopical Science* for April, 1872, state that the best way to demonstrate the lymphatic system of the diaphragm and neighboring parts is to keep a rabbit without food for sixteen or twenty hours; then to inject a small quantity of a five per cent. solution of Prussian blue into the abdominal cavity, and four or five hours later to kill the animal by bleeding or strangulation.

In the *American Naturalist* for April, 1872, H. L. Smith gives a method to make a frog motionless and apparently unconscious for many hours. All that is necessary is to plunge the frog into water about as hot as the hand can comfortably bear—about 120°—and to keep it there until it becomes rigid. The abdomen may be opened, the mesentery drawn out, and the circulation studied for a long time.

For putting up preparations, glycerine is not altogether satisfactory. Max Schultze, in his *Archiv* (vol. vii. p. 180, 1871), says that it makes certain parts too transparent, and, by uniting with fat, makes alterations in refraction, besides turning black when it comes into contact with hyperosmic acid. He recommends very strongly a concentrated solution of acetate of potash, to be used in the same manner as glycerine.

Luys, in *Robin's Journal de l'Anat. et de la Phys.* for March and April, 1872, gives a method of completely removing chromic acid from specimens which have been har-

dened in it. It is to put the section between two pieces of thin glass, and, thus protected, to immerse it in a concentrated solution of caustic soda for a few minutes, during which the tissues will swell and become transparent. It is then put into a mixture of two parts of hydrochloric acid and one of water, which causes the tissues again to contract. After five minutes' immersion the specimen is transferred to water, which is changed daily for two or three days. The section will then have regained its original color, and may be stained if desired. Luys has apparently used this method chiefly with sections of the nervous centres.

Rindfleisch, in *Schultze's Archiv*. (vol. viii. heft 3), describes a method for isolating the nerve fibres and ganglion cells of the brain, which gives beautiful results. Macerate a small piece of the cortical substance for ten or fourteen days in a 10 per cent. solution of hyperosmic acid, and then keep it for a week or so in glycerine. The specimen may then be easily broken up into small bundles of fibres. One is selected and put with a drop of glycerine under a covering glass into a sort of cell. The glass is then repeatedly tapped lightly, and the motion of the fluid breaks the specimen into the finest elements.

Great as have been the results obtained by the use of chloride of gold, it appears that still more is to be expected from it. Dr. Klein, in the *Monthly Microscopical Journal* for April, 1872, figures the results he has obtained in the cornea of rabbits and guinea pigs by using it in a new manner. The cornea is laid in a one-half per cent. solution of the chloride; if from a rabbit, it remains there for an hour and a half to two hours, if from a guinea pig, from an hour to an hour and a quarter. The specimen is then washed and exposed to the light in distilled water (to be occasionally changed) for twenty-four or thirty-six hours. It is then left for two or three days in a mixture of one part of glycerine and two of distilled water. A very delicate brush should be gently passed over the anterior surface to remove any remains of the precipitate, and sections should be made with a sharp razor. By this method the very smallest nerves are brought into view.

Dr. Arnold, in the *Philadelphia Medical Times*, July 1st, 1872, states that the results obtained by hæmatoxylin as a staining agent are much more satisfactory than those by carmine. An abstract of the ar-

ticle will be found in the number of this *Journal* for August 8th ult.

PHILOSOPHICAL ANATOMY.

Two questions belonging to this department of anatomy have of late excited considerable discussion, namely, the nature of the skull and the relations of limbs to each other; these two questions are really but parts of a third, that of the general plan of the vertebrate skeleton. There can be no question in the mind of any one that the right and left halves of the body are symmetrical, and that the shoulder girdle, upper arm, forearm, wrist and hand have respectively a certain correspondence to the pelvic girdle, thigh, leg, ankle and foot. There is, however, great doubt in what manner the arm and leg are to be compared; whether the latter is merely a repetition of the former, facing in the same way, or whether we are to admit a symmetry between the anterior and posterior parts of the body, and to consider the legs opposed to the arms in the same way that the latter are opposed to each other. The chief upholders of the latter view are Profs. Wyman and Wilder, and, with some modifications, Foltz, of Lyons; the former view, with some differences of detail, is more generally accepted.

Prof. Wyman, in the *Proceedings of the Boston Society of Natural History* (vol. xi.), gives as reasons for his belief in antero-posterior symmetry, several facts to be learned from the study of the embryo at its earliest stages. Among these we may mention that the growth is from a central point forward and backward, that the primitive groove of the nervous axis in its earliest stages is nearly symmetrically enlarged at either end, and that the process of formation and ossification of the spinal column begins at the middle and extends toward the ends. To compare the limbs according to this view, the body must be suspended horizontally, with the limbs hanging downward, the hand being supinated and the fingers pointing backward. From this point of view we find the radius homologous to the fibula, the ulna to the tibia and the thumb to the little toe. Foltz thinks that the thumb represents the fourth and fifth toes, and that the great toe equals the ring and little fingers.

According to the theories generally accepted in Europe, the tibia corresponds to the radius, the fibula to the ulna and the great toe to the thumb. The reader is referred to the works of Flower and Gegen-

anner, and to a good article on Comparative and Homological Anatomy by Macalister, in the *Journal of the Royal Dublin Society*, 1872.

Prof. Burt G. Wilder begins, in the *Proceedings of the Boston Society of Natural History*, 1871, an article on Intermembral Homologies, evidently the result of great labor, in which he proposes to strengthen whatever may be weak in Prof. Wyman's theory, and incidentally to revolutionize the nomenclature of the subject. That part which has appeared contains an historical sketch of the question, a revision of the nomenclature of parts and of that of ideas. Thus, to begin with that of parts, arm and leg will hereafter be *armus* and *skelos*, attached respectively to the *omozone* and *ischione*. The *armus* will consist of a *brachium*, *cubitum* and *manus*; the *skelos* of a *meros*, *crus* and *pes*; the thumb will be *pollex* and the great toe *primus*. We cannot look upon this as an improvement; we confess to preferring what Prof. Wilder calls "abominable terms compounded with 'lore.'" The common nomenclature of ideas, referring to this branch, is not satisfactory, for certain terms are used very loosely, and sometimes to express different ideas; but we find no help here. For "polar relation of back and belly" (Oken), "dorso-ventral polarity" (Dana), "vertical homology" (Mivart), &c., we are to have "pseudantitropy" (Wilder), which he defines as "the apparently antitropic relation between parts which are *telically* opposed to each other, but lie upon the *same* side of a structural plane." Part of the existing confusion is of Wilder's own making (as he indeed acknowledges), for he would hardly think it necessary to substitute "platitropy" for "bilateral symmetry" (Agassiz), and for "right and left symmetry" (Wyman), if he had not already enriched the vocabulary with "latitropy" and "latitropy." Dr. Coues contributing "lateritropy."

It appears to us that, if one of these ways of comparing limbs be correct, the other is entirely wrong; and, although he says nothing of it, that the doctrine of the vertebral character of the skull is absolutely necessary to the validity of Professor Wyman's theory. One would think that antero-posterior symmetry must exist in the spinal column as well as in the limbs; and as the tail undoubtedly consists of modified vertebrae that the head must be formed from the same elements. The researches of Rathke, Huxley and others have gone far to overthrow the vertebral theory of the skull.

If not completely found wanting, it is at least in so critical a condition that the burden of proof is on the side of its defenders.

The study of transcendental anatomy is, we believe and hope, on the decline. The address of Mr. W. Kitchen Parker, President of the Royal Microscopical Society of London (*Monthly Microscopical Journal*, March, 1872), is encouraging. We take this ground because, in spite of the valuable labors of several able observers, so much trash has been written by dreamers of various ability, from Oken downwards, as to make the study very unsatisfactory. Moreover, it leads to no certain results, as do embryology and comparative anatomy, but tends to encourage the vaguest theorizing. Among the most curious modern phantasies, we must mention a paper on the "Numeric Relations of the Vertebrate System," by Dr. T. G. Hilgard, read at the annual meeting of the American Association for the Advancement of Science. (See the publications of the Society. There is an abstract in the *American Naturalist*, September, 1871.) Dr. Hilgard begins by re-arranging the vertebrate cranium so as to make it consist of "five complete neural rib arches," and of "extremities" or prehensile appendages." He then states that the same numeric law which pervades the entire vegetable kingdom re-occurs in the human fabric in a very marked manner. The number of radiating elements in a coil or whorl, or of whorls in a cycle, or in cycles generally speaking, as in pine cones and flower buds, &c., are the following:—1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, &c." The application of this to the human skeleton is shown as follows:—"Inclusive of the terminal (ossified or gristly) coccygeal element we have exactly thirty-four spinal vertebrae.

"Classifying nerves by their work or function," we find

- 3 pairs of cervical nerves (neck),
- 5 pairs of brachial (*sic*) nerves (arms),
- 8 pairs of pedal nerves, composed of 3 crural (lumbar) and 5 ischiadic (sacral) ones,
- 13 pairs of nerves to the rump,
- 5 specific ones to the cranium;

34 in all; whereas the number of spinal vertebrae which enclose the spinal cord is exactly 21."* (The reader will observe the "cyclical" arrangement of the numbers.) As there are thirty-one pairs of spinal nerves and twelve (or at least nine) of

* This statement is not quite correct for the adult and entirely wrong for the fetus.

cranial ones, making forty-three or forty in all, we are anxious to know what has become of the others; perhaps, as Dr. Hildgard classifies nerves by their "work," those which he does not mention are for ornament. There are several other entertaining points in the article, but we will confine ourselves to alluding to "the varying cyclar number of 'loose' ossicles, such as carpals, tarsals, teeth, &c."

The "Origin of the Vertebrate Skeleton" (*Annals and Magazine of Natural History*, April and July, 1872), by Mr. Harry G. Seely, though in a different style, shows the same excess of statements over evidence. One quotation will suffice. "All vertebrate animals are locomotive, and all fish and all immature amphibia live in water. These animals progress backward, though we usually name the motion forward; that is, each uses its tail to obtain a leverage by which it retreats, the animal's head necessarily going where the tail sends it."

ANOMALIES.

Formerly, but little attention was paid to this branch of anatomy except in regard to the variations of the bloodvessels or to remarkable peculiarities of the viscera, but, of late, those of the muscles have been studied with the greatest care. This has been done chiefly in England, Germany and Russia. In America, except in one or two cities, there is no approach to the number of subjects seen in the dissecting-rooms of Europe; but we think that more might have been made out of the material than there is evidence of. It may be said that most of these anomalies are of little or no practical value; but, as in the cases of variation in the deep femoral veins, presently to be noticed, the seeker is often rewarded with discoveries of importance. Considered as a science it is not of the same misty nature as the transcendental researches lately discussed, for the identity of certain abnormal arrangements in man and of the normal disposition in some animals is a fact and not a theory.

The two greatest collectors of facts are Wood, of London (*vide Proc. Roy. Soc. London*), and Gruber, of St. Petersburg (*vide Publications of the Acad.*, and various *German Journals*). We mention only some of the latest contributions.

Osteology.—Dr. T. Hale Street, U. S. N., reports (*Amer. Jour. of Med. Sciences*, July, 1872) a case of two supernumerary ribs, one attached to each side of the seventh cervical vertebra. The specimen will be described more fully by Dr. W. W. Keen.

Myology.—In the same paper, Dr. Street describes a small tendon arising from the fascia binding down the *flexor sublimis dig.*, about two inches above the pisiform bone, joining and inserted in common with the *abduct. min. dig.* He also mentions a case occurring in both hands, of the tendon of the *flexor profund.* for the little finger being inserted to the radial side of that of the *sublimis* instead of piercing it.

Mr. J. B. Perrin writes a preliminary paper on the "Affinities and Evolutions of the Subclavian and Omohyoid Muscles" in the *Med. Times & Gazette* of April 27th, 1872. He gives instances of entire and of partial duplication of the omohyoid, and reaches the conclusion that the present arrangement is merely transitional. He says, "Even the single average muscle evinces unmistakable signs of desertion from the scapula to the clavicle as a proximal nidus, and further of culminating into a more useful monogastric rather than an incomprehensible digastric one."

Pozzi, in *Robin's Jour. de l'Anat. et de la Phys.* for May and June, 1872, describes a very common variety of the *peroneus brevis*, in which a band goes forward to the proximal end of the first phalanx. This is the *peroneus quinti digiti* of Wood. It occurs, according to both observers, about once in seven cases. Pozzi shows that it may be considered an "anomaly by reversion," as the phalangeal tendon is constant in the anthropoid apes, and as among mammalia the metatarsal and the phalangeal tendons may coexist, either being the larger, and as either may exist alone.

Mr. S. M. Bradley publishes in the *Journal of Anat. & Phys.* (May, 1872), an account of an abnormal muscle (normal in apes), the *abductor ossis metatarsi quinti*, which arises from the under side of the *calcaneum*, and is inserted into the base of the metatarsal bone of the little toe. He reports at the same time several other interesting though more common anomalies; among them a *cleido-occipitalis*, a *depressor thyroideæ*, a *rectus sternalis*, etc.

The reporter read a paper before the *Boston Soc. of Med. Sci.*, April 30th, 1872, which appeared in this JOURNAL (June 27th, ult.), on a case of an accessory belly to the second dorsal interosseous muscle of the hand, which he considered as representing a part of Prof. Wood's *extensor brevis digiti manus*.

Vascular System.—Gruber, in the 24th vol. 4th heft of *Virchow's Archiv*, gives two long and laborious papers on the occasional *arteria thyroidea ima*, and on the variations

of the internal mammary and thyroid axis. These papers contain apparently all that has been published about these vessels, together with the results of a large series of personal observations.

Dr. Street (*loc. cit.*) gives several arterial anomalies. The most interesting are of irregular division of the brachial artery. They are no exceptions to the rule, that in abnormal divisions of this vessel, the superficial arteries come from one branch and the deep from another. Foltz accounts for this by the duality of the organism in a lateral, an antero-posterior and a superior-inferior direction. According to him, what we call the normal brachial artery consists of the anterior and posterior brachials conjoined; hence, in high division we do not have a doubling of the vessel, but simply a resolution into its primitive parts. (*Vide Robin's Jour. de l'Anat. et de la Phys.*, May and June, 1872, for a review of this paper in the *Lyon Medical*.)

Gruber, in the *Bull. de l'Acad. des Scien. de St. Petersburg*, vol. 16, writes on the variations of the deep femoral vein, showing that it takes a comparatively superficial course in the back of the thigh sufficiently often to make its study of surgical importance.

Miscellaneous.—Gruber (*loc. cit.*, vol. 15) reports two cases of supernumerary lobes in the right lung. In one case there were four lobes; in the other five. In each case a part, at least, of the anomaly appeared to be due to the irregular course of the *vena azigos*, which ran over the right lung, and opened into the right aspect of the *vena cava sup.*, just below the innominate veins.

Dr. M. Watson, of Edinburgh (*Journal Anat. & Phys.*, May, 1872), describes in detail an interesting case of anomalous course of the *thoracic duct*, which ultimately opened into the right internal jugular vein. In the same journal Mr. Galton reports the case of a young man in whose upper jaw the right canine tooth appeared through the gum, just above the first premolar. Two supernumerary teeth, of which one had been extracted, had appeared just behind the superior median incisors. Mr. Galton gives some extracts from the literature of the subject, and remarks: "It cannot, however, be overlooked that by far the majority of cases of supernumerary teeth occur in the upper jaw, and further, that no case, as far as I am aware, has been recorded in which they have been associated with teeth which have had no milk precursors, i. e., true molars." This is quoted as

showing the rarity of the following case, reported by Langer to the Society of Anthropology of Vienna. (*Vide Revue Scientif.*, April 13th, 1872.) A negro had five supernumerary teeth, namely an additional true molar in each side of each jaw, and one extra premolar in the lower jaw. This anomaly is apparently unique.

OSTEOLOGY.

"*Synopsis suturarum et epiphysium*" is the title of a very thorough enumeration in Latin of all the epiphyses, and of all the places where two or more bones or, for the time, distinct parts of the same bone come together. *Auctore Kinberg (Publications of the Roy. Acad. of Stockholm, 1870).*

There is an interesting account of the condition of the skull in old age, by Sauvage, in the *Bull. de la Soc. de l'Anthropol. de Paris*, for June and July, 1870. The chemical changes are taken first. The author finds that the water is diminished. With advancing age the quantity of mineral matter becomes proportionally greater and that of organic matter less, although there is an increase in fatty substances. The loss in capacity and the gain in weight are very trifling. The greater depth of the vascular grooves is due to thickening of the bone, for a section shows the layers bending under the grooves, while the inner ones would be cut through were the grooves caused by wearing away at the bone. Thinness of the skull, from Pacchionian depressions, usually co-exists with deep grooves, and the depressions are usually more numerous and deeper on the left side. The obliteration of the sutures begins towards the age of forty-five. The coronal and lambdoidal follow the sagittal. In the coronal suture the obliteration begins in the middle, and is more perfect on the right side than on the left. In the lambdoidal the process begins on the right side and travels along the suture.

In the same number Dr. Le Courtois considers the morphological changes in the vault of the skull, according to the age and the cranial type. He has no doubt that from birth to adult age the parietal region undergoes a considerable diminution of convexity, and that during the same period the frontal and parietal protuberances become less and less prominent with even greater rapidity. He shows by a large number of observations that, contrary to the opinions of Welcker and Schaaffhausen, the skull at birth may be of any type, either very narrow or very broad.

Prof. Calori publishes a paper on the so-

called Scafold Cranium (Scafocephalus of Baer), in the *Mem. Acad. Scie. of Bologna* (2d Series, Vol. 10, Fascic. 3, 1871).

Dubruil shows from sections made just above the middle of the fibula of an adult, of a child of five and a half, of a child at birth, and of a six months fœtus, that the size of the canals increases in direct ratio to the age, and that the number diminishes. His tables appear to show that the latter change takes place more rapidly than the former, so that the bone becomes less and less vascular. (*Vide Robin's Jour. de l'Anat. et de la Phys.*, Jan. and Feb., 1872.)

"Growth of the Human Body in Relation to Giants," by Carl Langer (*Memoirs Imp. Acad. Sciences of Vienna*, Vol. 31, 1872), is the title of a long and valuable paper, in which the proportions of the body and the laws of growth of its various parts at different ages are studied very carefully. He considers the proportions of children, of adults of medium size, of very tall men, and of giants, keeping the last two classes quite distinct. As it would be impossible to do justice to this paper without a great deal of space, we give only some of Prof. Langer's conclusions :

"Gigantic growth is merely a continuation of the normal development of the body ; but because some divisions of the body cease sooner to expand, and because others do not keep up with the long bones in rapidity of growth, in overgrowths certain discrepancies necessarily occur as well in the formation of certain bones as in the dimensions of certain divisions of the body, and occasionally not less in the proportions of the whole figure. It is in these discrepancies that lie the peculiarities of giants." As the excessive growth rarely begins before the tenth year and is usually completed by the twentieth, Langer would have this point of equal importance with those above mentioned to determine if any case of unusual growth is to be called gigantic.

The last number (*July and August*, 1872) of *Robin's Journal*, contains the first of what promises to be a valuable series of papers entitled "Anatomical Researches on the Normal Curves of the Spinal Column in Man and Animals, by Dr. Bouland." The present paper treats only of the normal antero-posterior curves in man. After giving several extracts from the works of celebrated anatomists, Dr. Bouland states the present belief to be as follows :—"1st, That at birth the human spinal column presents no curves, if examined in a horizontal position ; 2d,—That up to the age

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of five or six years it presents only temporary curves or posterior curves, which disappear in the horizontal position ; 3d,—That the permanent curves, which are formed later, are, according to some, the results of various mechanical actions, while, according to others, they are the effects of the organization itself."

To investigate the matter, he took an equal number of subjects of both sexes, removed from each the head and limbs, the viscera and soft parts, so as to have merely a ligamentous skeleton of the trunk. This he imbedded in plaster of Paris, and, when it had become hard, divided it by an incision through the middle of the vertebræ and of the sternum. He arranged his specimens in four groups : the first of children at birth, the second of fifteen or sixteen months, the third of about three years, and the fourth of about five. At birth he finds the line of the spinous processes perfectly straight, but that of the bodies already curved. There is more or less of a cervical and dorsal curve in all the groups, but the lumbar curve is usually absent in the first two. The author proves by experiment that the ligaments have no share in forming the curves, which depend entirely on the difference in height between the anterior and the posterior surfaces of the bodies, (consisting of the central osseous nucleus and of the cartilaginous epiphyses), and of the intervertebral discs. As a rule, the curve in the back is caused chiefly by the bones, those of the neck and loins by the intervertebral cartilages. Dr. Bouland concludes that the cervical and dorsal curves depend on laws of organization, and not on mechanical causes arising from the upright position of the human body ; but that this has an effect on the lumbar curve, as this is not constant till the child has begun to walk.

A full account, by M. Rivière, of the fossil skeleton, which he discovered last March near Mentone, has, we believe, not yet appeared. We gather, however, from various sources, that the specimen has been moved to Paris, but not with such perfect success as could be wished, as the parts in contact with the ground were far gone ; that the skull is narrow but not prognathous, that the orbits are quadrilateral, and the tibiae flattened.

(To be continued.)

AMERICAN PHARMACISTS.—There are fourteen thousand pharmacists in the United States.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M.D., SECRETARY.

JUNE 10th.—*Aneurism of the Middle Cerebral Artery.*—Dr. WELLINGTON reported the case and showed the specimen.

The patient, a policeman, 41 years old, had for two years complained of pain, and other uncomfortable feelings, in the head. He would sometimes speak of smelling disagreeable odors, which were not perceptible to others. Five weeks before his death he had a severe attack of headache, accompanied by double vision. This lasted three days, and gradually subsided.

The day before his death he suffered another severe attack of headache. He, however, in the evening started on his round as night-policeman, hoping the fresh air would ease his pain. He suffered greatly through the night, and returned home at 4 o'clock the next morning in great agony. He acted strangely and seemed bewildered, vomited and had two dejections. At 5, A.M., became insensible; breathing labored; pulse feeble; extremities cold and covered with a clammy sweat; pupils contracted. He died at 9.40, A.M.

At the autopsy, a large coagulum was found in the right anterior lobe of the brain, near the fissure of Sylvius. In the midst of this coagulum was an aneurism of the middle cerebral artery, an inch in length, two thirds of an inch in diameter, filled with firm, old coagula, and the rupture of which had caused the hæmorrhage.

The inner coat of the basilar and middle cerebral arteries was diseased, a whitish deposit being contained in their substance.

JUNE 10th.—*Aneurism of the Arteria Innominate, opening into the Trachea.*—Dr. J. B. S. JACKSON reported the case and showed the specimen.

The patient, a healthy looking sailor, 35 years of age, entered the U. S. Marine Hospital, under the care of Dr. A. B. Bancroft, April 12th, 1872, having given up his work two weeks previously, and on the 7th of May he died. Six months before admission, and after being wrecked off the coast of Nova Scotia, he was very greatly exposed, and at last obliged to swim two miles for his life. Previously he had been quite healthy, but a severe cold that he got at that time never entirely left him, and about three months before entrance into the hospital, he began to feel the indica-

tions of the fatal disease. These, which of course gradually increased, consisted of paroxysms of dyspnoea, with wheezing respiration, a violent, hoarse, racking cough, as in croup, an expectoration of several ounces of blood and mucus, distention of the veins of the neck, and profuse perspiration. A distinct murmur of a peculiar character was heard over the right clavicle, and subcrepitant râles were occasionally heard in both lungs. Right radial pulse much weaker than left, and sometimes it seemed to be quite wanting. Right carotid pulse not to be felt on entrance, but it was felt afterwards. No tumor could be felt in the neck. Voice not husky, not much cough, and not ringing, except during paroxysms. Breathing sometimes quite natural for some days, whilst he was under observation in the hospital, and during which time he had eight or ten of the paroxysms above described. The case was regarded by Dr. B. from the first as one of aneurism, and probably of the arteria innominata, and all that was done was to soothe the patient and await the result. His death was at last sudden, and accompanied by the raising of several pints of blood.

The aneurism, which was shown to the Society, and is to be placed in the Museum of the Medical College, was quite defined, larger than a hen's egg, and commenced abruptly two thirds of an inch from the aorta. The carotid and subclavian arteries arose freely from it, but as at their origin they were about half an inch apart, it was evident that they were involved in the aneurism. The sac contained a large amount of old coagula, and communicated freely with the trachea midway and upon the left side, by a defined, narrow, transverse fissure, about three-fourths of an inch in length, as seen on the inner surface of the trachea. The lungs were distended with blood, and distinct collapse.

JUNE 10th.—*A case of double ovariectomy. Death from peritonitis and malignant disease of the stomach and peritoneum.* Dr. JOHN HOMANS showed two cystic tumors of the ovaries, with other specimens, and reported the following case:—

Bridget M., 32 years old, unmarried, was admitted to the Carney Hospital June 8th, 1872. She states that she enjoyed good health till four months ago, when she noticed a soreness across the abdomen. Two months later two tumors, rather flat, about the size of lemons, perfectly movable, were noticed in the right iliac region. From this time till the present she has not been able

to eat much or work, and has had more or less vomiting; the catamenia ceased about the time of the appearance of the tumors.

Now the right umbilical and iliac regions are occupied by a tumor, having the shape of a somewhat flattened sphere, hard, solid, and freely movable. This tumor projects downwards between the uterus and rectum. A large lobe, or a distinct tumor, can be felt on the left side of the median line and in the pelvis. In appearance the patient is pale, rather emaciated, vomits everything but milk and lime water. The neck of the uterus is nearly obliterated, its cavity is normal, it can be moved somewhat towards the left, but not towards the right, and not perceptibly upwards. The bladder is depressed, so that the course of the urethra is downwards. Of several gentlemen who examined the patient, three thought the tumor fibrocystic of the uterus, and one, malignant of the ovary. My diagnosis was tumor of right ovary, certainly, and probably, also, of left; the character of the tumor uncertain, but probably cancerous. The tube of the pneumatic aspirator gave exit to about $\frac{1}{2}$ drachm of thick clear viscid fluid.

June 18.—Patient was etherized, and an incision, from about 2 inches above umbilicus to pubes was made. Two quarts of ascitic fluid ran out. Both ovaries were removed. There were no adhesions. The tumor of the right side weighed four pounds, and that of the left one and a half pounds. The pedicles of the tumors were the broad ligaments and round ligaments. Clamps could not be brought outside the abdominal wall without great traction on the uterus, and the pedicles were ligatured, one with silver wire and one with silk, and the ends brought out of the wound. There was a cancerous-looking nodule cut through in making the incision through the peritoneum, and several nodular tumors, the size of peas, were seen in the uterine wall. Deep and superficial sutures closed the wound. Pulse 120 after the operation. For about ten hours after the operation the patient was quite comfortable, then vomiting began and continued more or less till death, forty hours later.

At the autopsy made fourteen hours after death, by Dr. Fitz and myself, the wound was found well united by adhesions, particularly the peritoneal edges. A slight amount of blood among the muscular fibres. Intestines glued together and to the inner aspect of the wound by delicate false membrane. About a pint of reddish fluid in the abdominal cavity. Spleen, liver and

kidneys presented no unusual appearance; in the stomach, about half way across the small curvature, was an irregularly rounded, thickened, ulcerated mass, as large as the palm of the hand, the edges elevated, rounded, somewhat conated, the central portion depressed and of a ragged, yellowish-white color. The great omentum was shrivelled into a dense mass, containing numerous small grey nodules; secondary nodules were found in the mesentery, especially near its intestinal attachment, over the kidneys, and in the recto-uterine space, in the anterior and posterior wall of the uterus. The left lateral ovarian ligament was attached to the sigmoid flexure by recent fibrinous adhesions. There were also old adhesions between the uterus and intestine at this point. There was a nodule, also, in the track of the wound, about half way between umbilicus and pubes. On section, the ovarian tumors were seen to be cystic. Dr. Fitz was kind enough to examine the various specimens microscopically, and reported that the ovarian tumors were cystic. The tumors of the stomach and peritoneum were sarcomatous. The disease of the stomach would formerly have been called cancerous; it is malignant, but in structure is sarcomatous and not carcinomatous.

KEROSENE OIL IN CHRONIC RHEUMATISM.—A New Zealand correspondent of the *Brit. Med. Journal* reports six cases of chronic rheumatism in which, even in the most aggravated instances, he found very marked relief to be obtained from the use of kerosene oil in drachm doses. The writer remarks in conclusion:—

"Although kerosene cannot be called a specific for rheumatism, I think that the cases here cited are quite sufficient to induce medical men to give it a fair trial. I am unable to find any unpleasant symptom caused by taking kerosene. The great objections with many people to taking it, are the unpleasant taste and smell. Some have taken it in water or milk; but I have lately heard a patient say he could take it best with salt; a pinch of salt being put into the mouth and allowed to dissolve, and the oil then swallowed, mixed with its own bulk of water. I am not aware of the remedy ever having been used internally; but I trust some medical men will be found who will give it a trial and record the results of his cases. Externally, it is of great use in burns; it seems to relieve pain more than any other application, especially if resorted to as soon as the injury is received."

Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 5, 1872.

THE PUBLIC SCHOOLS.

THE close of the summer vacation and the return of thousands of children to their wonted places in the school-room, suggests a brief inquiry whether the methods of discipline and study are consistent with sound hygienic and sanitary principles.

During the past season we have been called in many instances to attend upon children whose health in various ways had seriously suffered from the systems now pursued in the public schools. These cases embraced nervous affections, chorea, hysteria, nervous debility (so called), febrile excitement or depression, and other disturbances, resulting from overwork, or from tasks suited rather to adult than to youthful heads and minds, and from the methods by which the performance thereof is enforced and obtained. It may be that the tasks were not always too long; but when, for instance, a class of young girls is required to carry up, as an ordinary lesson in physiology, a written account of the circulation of the blood—a task which would puzzle most parents, not to say some doctors, to do intelligibly—one cannot help thinking that such a task cannot be too short. It should be, as the lazy boy wished of his Latin nouns, declined altogether.

But if the tasks are not generally too severe, they are exacted by what would seem very objectionable methods. The grand idea prevailing throughout the whole system, from infant to normal schools, is promotion. To be advanced (?) on a given day to the next higher class or division is the whip wherewith to lash the jaded victim over the rough road and through the tiresome ways. Not to be hindermost is the great bugbear urging on the aspirant, from the cradle onwards.

Who is responsible for this state of things? Go to the teacher, and we are informed that the evil is fully appreciated, but he can do nothing; the committee make the rules, and the teacher must carry them

out at his peril. Go to the Committee—they are only public servants; the public demands a high mental cultivation, and free institutions are safe only in the hands of the educated. Our common schools are our glory, and they must not be allowed to fall behind the requisites of the times! The fault is in the children themselves, not in the system, that they break down. A committee can no more find healthy bodies for the pupils than they can supply them with brains. This, or its equivalent, is the usual result of any attempt to ameliorate the system.

In contrast, we know a school, where with strict order and discipline, the pupils are made to appreciate that what to-day they are learning is something in itself useful to them, something they will be happier for knowing after the troublesome work is accomplished, something which will help them to gain other knowledge to-morrow, something for themselves, no matter what others do or are—not something merely by which to get ahead of others, or to gain admission to a higher class—that will take care of itself. In this school (and it is not ideal or faultless) self-dependence, individuality, are promoted; personal peculiarities are studied and improved upon, but not subverted; and everything done with the view of making each pupil "self-contained" and efficient. One day in the week is entirely the pupil's, even to lying in bed till noon if breakfast is not cared for; and this day, of all others, is the one on which the teacher depends for discovering the real characters of the pupils, and for devising the best expedients for improving them. Every week the order of excellence in everything, studies, manners, and even dress and the mode of managing it, is announced to the full school, but no comments are made upon individuals.

Is it not possible to learn some wisdom from the management of such schools, and is it not time to devise some improvement on the high-pressure, competitive system generally in vogue, and to introduce some more sensible methods which shall promote more fully health of body while they develop mental vigor?

THE CITY PEST HOUSE.

THE recent investigation in regard to the Smallpox Hospital in Boston has developed many facts of interest. It has been clearly proved that there has been no such neglect and abuse of patients there as the public had been led to think; and that the physicians in charge had done everything for the comfort and welfare of the patients which the limited conveniences at their command would permit. The insufficient accommodations and ill-appointed condition of the pest house were matters beyond their control. There is such a dread of this disease that it is very hard to procure good nurses, and much trouble was also had in getting workmen to make alterations and repairs upon the building. The investigation will result in good, however, if it leads to the immediate establishment of a suitable-sized and well-appointed pest house in some locality which is not too inaccessible. The necessity for such an establishment will be imperative before the inclement season comes to make transportation of cases of smallpox to the island hospitals impracticable, because dangerous to life. The summary order of the Board of Aldermen to remove patients to the harbor pest houses has solved the difficulty temporarily, but the relief will be operative only during the warm season. Even if smallpox should wholly retire from our midst, the city ought not to continue so ill prepared as it has been in former years for the occasional outbreak of the disease.

THE BLOOMINGDALE INSANE ASYLUM.

PUBLIC curiosity and, to some degree, doubtless, public indignation also, have been stimulated by the recent widely published charges against the management of this well-known institution near New York. If there is any truth in the statements concerning the detention of perfectly sane people on the presumption of insanity, or concerning abusive and improper treatment of patients there, it will come out in the investigation which has been already ordered. Meanwhile, popular judgment should be suspended. It is easy enough to arouse a prejudice against an institution about which

so much mystery hangs as is inevitable and necessary with an insane asylum, because of the subtle nature of the mental disease treated there; but we believe sensible people, while awaiting the results of the investigation, will prefer to give the Asylum the benefit of every doubt and will accept the published statement of a responsible and respectable Board of Supervision instead of unconfirmed charges of discharged patients.

We are glad to observe that the expression of the public press is almost universally condemnatory of the exploits of a *Tribune* reporter, who thought it sharp to feign insanity and get himself lodged in Bloomingdale, for the purpose of surreptitiously obtaining facts. Such sneak-practice betokens neither great shrewdness nor a proper sense of honor, and the facts secured will not carry much weight with people of discernment, who can only look upon journalistic enterprise of this sort with the reprehension it deserves.

From Continental Journals.

FATAL CASE OF PERITONITIS FOLLOWING A SINGLE EXAMINATION OF THE VAGINA.—Mr. Gillette reports [*Gaz. des Hopitaux*, No. 57, 1872; *Allg. Med. Cent. Zeitung*, July 6, 1872] the following case of death from peritonitis, following a single vaginal examination, occurring in the case of a woman who had entered the hospital on account of a prolapse of the vagina. The patient was 40 years of age, and desired admission to the hospital, complaining of general weakness and a feeling of weight in the perineum, attributed to a prolapse of the uterus. She had given birth to one child ten years previous. For about a year a profuse hæmorrhage had occurred at the menstrual epoch. After allowing her to rest for three days, a vaginal examination was made, at which it was ascertained that a moderate prolapse of the uterus existed. There was no indication that any pain was indicated at this examination, nor was any attempt made to introduce a speculum.

On the following day a severe peritonitis ensued, the symptoms being all well marked, and the woman died in 48 minutes after the commencement of the attack. At the autopsy there was found, in addition to the usual changes of peritonitis, a decided

congestion of the left Fallopian tube and *ostium abdominale*. The left ovary was congested and enlarged, while between it and the tube was found a cavity filled with pus, and lined with a false membrane. A small sub-peritoneal abscess was also found. These lesions, then, of the ovary and the neighboring parts formed the point of origin for the peritonitis, while the mucous membrane of the uterus was merely the seat of a fungus-like softening. It has been observed by Nelaton that there not unfrequently exists some latent affection of the appendages of the uterus, the result generally of chronic inflammation, or the presence of some fungous or fibrous growth, and that the abdominal pains induced thereby leads the patient to seek surgical advice. In these cases the simplest examination of the vagina may be followed by severe and even fatal results. Recamier, moreover, reports in this connection, that two cases have come under his notice in which death ensued in 48 hours after some application had been made to the cavity of the womb.

These unfortunate instances should put the surgeon on his guard, when called upon to examine women, in case of whom there may be any suspicion of latent disease in the appendages of the uterus, as indicated by the presence of pain in the iliac region. It should also be borne in mind that the instrumental examinations of the womb, when accompanied by pain, may be followed by the most serious results. N.

INFLAMMATION OF THE KIDNEYS FOLLOWING THE EXTERNAL APPLICATION OF TAR.—Although the theory of metastasis in the treatment of skin diseases has been for a long time vigorously combatted by Prof. Hebra, there still lurks in the minds of certain writers of eminence, among whom may be mentioned Niemeyer, that where a morbid secretion of the skin is suddenly suppressed, some injurious effects may be produced upon the internal organs, owing, perhaps, to the additional labor they are called upon to perform in eliminating this morbid matter.

In the case here reported by Dr. Kirchhelm (*Berliner Klin. Wochenschrift*, May 6th, 1872), very serious internal lesions were found to follow the cure of an eczematous eruption, but the unfortunate result is ascribed by that gentleman not to any metastasis of the eruption, but rather to the irritating effect upon the kidneys of the tar employed externally in the course of the treatment. This agent, when applied ex-

ternally, is absorbed by the skin, and is eliminated by the kidneys, and Hebra is in the habit of warning students, that where an extensive portion of the body is smeared with any of the preparations of tar, pain in the kidneys and strangury may be produced. In no instance, however, does he appear to have met with any serious effects from this mode of treatment.

The patient of Dr. Kirchhelm was a robust young man, who entered the hospital on account of an infiltrated eczema of the lower extremities, of about a month's duration. By the aid of the usual baths and applications of soap, oleum jecoris, unguentum diachylon, etc., the eruption was soon brought back to a condition of eczema squamosa, after which a preparation of oil of cade and glycerine was applied on three consecutive days. On the fourth day indications of general constitutional disturbance were noticed, such as headache, loss of appetite, pain in voiding urine, etc., so that the application of the tar was at once suspended. The symptoms instead of abating, however, increased in severity. Severe pain was now experienced in the region of the kidneys; the urine was reduced in quantity and loaded with albumen; the skin assumed an edematous appearance, while the serous infiltration of the lungs was so great as to occasion great dyspnoea. After a dangerous illness, lasting nearly three months, and complicated by an attack of pneumonia, the patient had the good fortune to recover, completely relieved, by the way, of his eczema. N.

NEURALGIA AND SCIATICA CURED BY TURPENTINE. TURPENTINE PEARLS.—Dr. Martinet, in a memoir presented by him to the Faculty of Medicine (*L'Union Medicale*, June 20, 1872), affirms that he has cured fifty-eight cases of neuralgia and sciatica out of seventy, by the use of essence of turpentine.

The great efficacy of this agent is not to be doubted in the above named affections; and what is remarkable, the benefit is almost always felt from the first doses. But this medicine has such a disagreeable odor, such a harsh and pungent taste, that it is quite impossible to take it pure. Dr. Clertan has contrived to enclose it in very thin and transparent gelatine, in the form of little globules of the size of peas, to which he has given the name of pearls. Dr. Clertan's "turpentine pearls" are as readily swallowed in a little water as pills. This agreeable form has made the essence of turpen-

tine quite popular; and now there is not a physician (so says the announcement!) in France who does not resort to turpentine pearls, in the treatment of neuralgia and sciatica. Trousseau always prescribed turpentine in this form. C.

A SURE AND SAFE METHOD OF REMOVING FOREIGN BODIES FROM THE EAR.—The following method for removing foreign bodies from the external auditory meatus is suggested by Dr. Könenberg of Paris (*Berlin. Klin. Wochenschrift*, No. 9, iv. 10, 1872), and is applicable in those cases in which the ordinary methods of extraction, by means of instruments and the syringe, have proved unavailing. It consists in smearing the presenting surface of the foreign body with some adhesive fluid, which speedily hardens, by the aid of which a sort of handle may be fastened to the body, which may then be readily withdrawn, without causing any pressure upon the walls of the auditory canal. One of the best substances to be employed for this purpose is ordinary glue, which should be dissolved in cold water the day before the operation, and then thickened by means of the water-bath immediately before being used. The glue is applied by means of a small brush, the head of the patient being allowed to rest upon a pillow. When the foreign body is well smeared, the end of the wooden brush-handle may be inserted into the auditory meatus, and placed in contact with the body. At the end of three-quarters of an hour a firm union generally takes place, and the offending substance can be easily extracted. It is essential that the surface of the body upon which the glue is smeared should be perfectly dry. If the surface is made moist by the existence of some discharge, it may possibly be kept dry during the operation by the introduction of a current of warm air. If it is found impossible to keep it dry, then some other substance must be used to cause adhesion, such, for instance, as plaster of Paris or cement, which are hardened by the mixture of water. The writer is of the opinion that this so-called adhesive method can be applied in cases where the foreign body has penetrated the tympanum, provided the opening at the point of perforation is sufficiently large to admit of the introduction of a slender splinter of wood, to which the adhesive mixture has been applied, and by the aid of which the foreign substance may be laid hold of, and extracted. N.

CANCER OF THE TONSILS.—Mr. Alfred Poland, in the course of a paper in the April number of *The British and Foreign Medico-Chirurgical Review*, after alluding to the great rarity of cancer of the tonsils, and to its inevitably fatal termination, says that it may be either primary or secondary, or of the medullary or scirrhus form. In regard to the diagnosis of the disease, he adds that "in the early stage of both forms of the disease there is no distinguishing mark to guide us as to the nature of the disease. Enlargement of the tonsil is the only sign, and this does not arrest the attention of the patient, nor excite any suspicion in the mind of the surgeon, in consequence of the very frequent occurrence of subacute and chronic inflammation of the glands in a very great majority of persons. As the disease advances, the peculiar nature of the fatal disease begins to develop itself. When rapid, it steadily encroaches upon the fauces and pharynx, involves the lymphatic gland at the angle of the jaw, and afterwards the cervical glands, and soon destroys the patient. The scirrhus variety, on the contrary, may often fail to be recognized; but its slow progress, and its becoming ulcerated and excavated on its surfaces, render it less liable to be confounded with chronic hypertrophy and syphilitic ulceration. However, both these diseases have passed for cancer; and, on the other hand, cancer has been presumed when subsequent results have disproved the supposition. Excessive hardness, implication of the lymphatic glands, peculiar ulceration, fetid discharges, increasing growth, and peculiar cachexia, seem to be its characteristics."

In speaking of the treatment, Mr. Poland says that, whenever there is any reason to believe that there is a syphilitic taint, iodide of potassium should be given, and in any case it might be well to give the patient the benefit of the doubt. He refers approvingly to Dr. Cheever's operation in extirpating an encephaloid tonsil and an enlarged gland at the angle of the jaw, by an external incision in the neck. This operation appears to have been performed, however, by Langenbeck in 1865, and by Hueter in the same year. Caustics, and escharotics generally, only aggravate the pain, and are not recommended. The removal by the amygdalotome is generally out of the question. The *écraseur* may, however, be used, when the tumor has not attained a large size, and when the loop of the instrument can readily embrace the whole base of the tumor.—*Phil. Med. Times*.

Medical Miscellany.

THE MEDICAL REGISTER FOR BOSTON AND VICINITY.—We are requested by the Editor of the Register to state that it is in the hands of the printer, and that replies to unanswered circulars must be forwarded to him at once.

APPOINTMENTS.—Dr. Thomas Dwight, Jr., of this city, has been appointed Professor of Anatomy in the Medical School of Maine at Brunswick.

HAMPTON E. HILL, M.D., of Augusta, has been elected Demonstrator of Anatomy in the Maine Medical School at Brunswick.

DR. E. J. TILT, of London, has recently been elected a Corresponding Fellow of the New York Academy of Medicine.

DR. BROWN-SEQUARD has resigned the chair of "Comparative and Experimental" Pathology in the Paris Faculty of Medicine, which he has temporarily filled since the death of Rayer.

ROYAL COLLEGE OF SURGEONS.—Mr. Henry Hancock, Surgeon to the Charing Cross Hospital, was recently elected President of the Royal College of Surgeons of London, to fill the vacancy caused by the retirement of Mr. Geo. Busk, F.R.S. During the past year 349 gentlemen were admitted members of the College.

MEDICAL RANK IN THE NAVY.—The *Naval Register*, recently published, gives the following numbers and rank of the Medical Staff: 15 Medical Directors, with the relative rank of Captain; 15 Medical Directors, with the relative rank of Commander; 50 Surgeons, with the relative rank of Lieutenant-Commander; 25 Passed Assistant Surgeons, with the relative rank of Lieutenant; and 52 Assistant Surgeons, with the relative rank of Master.

Among the "volunteer officers" are 2 Acting Passed Assistant Surgeons and 11 Acting Assistant Surgeons.

SUPPURATION OF ONE-HALF LOBE OF CEREBRUM.—Dr. Schwartzenthal relates briefly the case of a man 30 years of age, a day laborer, who had suffered, for over two weeks, in the commencement of May, in the year 1871, from pain in the head, with languor and want of appetite, followed by a severe fever of an entire month's continuance. After this, apparent convalescence ensued, and the patient resumed his ordinary occupation. About four weeks after he had left the hospital, whilst engaged in an altercation, he received a blow upon the head, and instantly expired. Examination after death showed that the posterior half of the right lobe of the cerebrum was reduced to a circumscribed accumulation of pus, while the anterior half of the lobe and the entire left cerebral hemisphere were of a doughy consist-

ence. The cerebellum was to some extent softened. Up to the period of his death, the patient had continued at labor without apparently the least difficulty.—*Centralblatt f. d. Med. Wissenschaften*, 1871, No. 12, from the *Wien Med. Presse*, 1871.—*American Journal of the Medical Sciences*.

OZOKERIT IN SKIN DISEASE.—H. S. Purdon, M.D. (*Dublin Quarterly Journal of Med. Science*), recommends ozokerit, or vegetable wax, in the treatment of chronic affections of the skin, eczema of long standing, unaccompanied by much infiltration of the subcutaneous cellular tissue, tinea, scabies, and psoriasis. He states that it is as valuable as carbolic acid, oil of cade, or tar. Its action is regarded as that of a stimulant to the skin.—*Med. Record*.

EFFECT OF DIET AND EXERCISE ON THE ELIMINATION OF NITROGEN.—Parkes (*Proceedings of the Royal Society*, 1871, p. 349) finds that moderate exercise on a mixed diet has little influence on the excretion of nitrogen or on the temperature. It causes temporary quickening of the pulse; but this is succeeded by corresponding slowness, so that the mean pulse-rate during the day remains the same. The elimination of nitrogen is increased during the period of rest after severe exercise. The muscles can obtain the energy required for great exertion from fat and starch, though certain changes in their nitrogenous constituents also occur, which give rise to increased elimination of nitrogen after the work is over.—*Brit. Medical Journal*.

Deaths in fifteen Cities and Towns of Massachusetts, for the week ending August 24, 1872.

Cities and Towns.	No. of Deaths.	
Boston	190	Newburyport 2
Charlestown 24		Somerville 9
Worcester 36		Haverhill 9
Chelsea 8		Holyoke 9
Cambridge 26		
Salem 12		
Lawrence 11		
Springfield 19		
Lynn 21		
Fitchburg 8		
Taunton 7		
	382	

Prevalent Diseases.

Cholera Infantum	124
Consumption	60
Dysentery & Diarrhoea	23
Typhoid Fever	18

There were four deaths from smallpox in Boston, and one in Chelsea.

GEORGE DERRY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 31, 172. Males, 78; females, 94. Accident, 5; apoplexy, 2; inflammation of the bowels, 3; bronchitis, 1; inflammation of the brain, 1; congestion of the brain, 4; disease of the brain, 2; cyanosis, 1; cholera infantum, 54; consumption, 24; convulsions, 4; croup, 1; debility, 2; diarrhoea, 13; dropsy of brain, 5; dysentery, 3; scarlet fever, 1; typhoid fever, 3; fever, 1; disease of heart, 5; inflammation, 1; disease of the kidneys, 3; congestion of the lungs, 1; inflammation of the lungs, 4; marasmus, 11; old age, 1; paralysis, 1; pleurisy, 1; premature birth, 4; scrofula, 1; smallpox, 3; cerebro-spinal meningitis, 2; whooping cough, 1; unknown, 1.

Under 5 years of age, 111;—between 5 and 20 years, 8;—between 20 and 40 years, 27;—between 40 and 60 years, 16;—above 60 years, 10. Born in the United States, 140;—Ireland, 21;—other places, 11.